Epitomes

Important Advances in Clinical Medicine

Urology

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The Council on Scientific Affairs of the California Medical Association presents the following epitomes of progress in urology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and clinical importance. The items are presented in simple epitome, and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist busy practitioners, students, researchers, and scholars to stay abreast of progress in medicine, whether in their own field of special interest or another.

The epitomes included here were selected by the Advisory Panel to the Section on Urology of the California Medical Association, and the summaries were prepared under the direction of Ira D. Sharlip, MD, and the panel.

Laser Treatment of Genital Condylomata Acuminata

GENITAL CONDYLOMATA are caused by the human papillomavirus (HPV), a heterogeneous family of at least 34 distinct types of viruses. Condylomata, caused by HPV types 16, 18, and 31, have been associated with cervical cancer in women and penile carcinoma in men. Genital infections in humans may present in two structural forms: as a classical verrucous papillary growth that may range from 1 mm to several centimeters in diameter, or as a flat plaque that is not visible to the naked eye. Women may have lesions on the cervix, introitus, perineum, and perianal region. In men, the lesions may occur on the penile shaft, scrotum, and perianal region. These lesions are best identified by magnified penile surface scanning after applying a 5% solution of acetic acid to the genitals and identifying white plaques ("acetowhite") that are known to indicate infection with HPV. Urethroscopy is indicated when patients have lesions on the glans or at the meatus.

Treatment modalities include the application of a topical antimetabolite such as fluorouracil or podophyllum resin, cryotherapy, surgical excision, electrocautery, and laser phototherapy. The carbon dioxide and the neodymium:yttrium-aluminum-garnet lasers are both used for the treatment of genital condylomata. More than 90% of the patients are treated under local anesthesia as outpatients.

All patients are reexamined at two months, and any residual lesions are retreated. Patients with lesions on the penile shaft are advised to use condoms for three months. The recurrence rates for laser therapy vary from 20% to 50% and are about 30% less than recurrence rates of other treatment modalities.

Laser phototherapy for genital condylomata is a rapid and effective mode of treatment and can be done on an outpatient basis. The amount of discomfort after treatment is the same as with other methods of therapy.

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Should We and Can We Cure Prostate Cancer?

RANDOMIZED, CONTROLLED TRIALS are now underway that will assess the influence of prostate cancer screening on cancer-related mortality and the outcomes of radical prostatectomy versus observation with delayed androgen deprivation. Results are expected to be available within 15 years. In the interim, millions of men will have to decide whether or not to undergo diagnosis and treatment of prostate cancer, which is the second leading cause of cancer deaths in men in the United States and now kills 40,000 annually.

Increasing information about the use of serum prostate-specific antigen (PSA) levels has been essential to understanding many aspects of prostate cancer. There has been concern that PSA testing might discover the minute and clinically unimportant prostate cancer often found in autopsy series of men older than 50 and lead to unnecessary treatment. As many as 99% of tumors detected by elevated PSA levels (>4 ng per ml) or a digital rectal examination, however, have the volume or grade of clinically important cancer. When the PSA test is combined with rectal examination, two thirds of newly diagnosed cases are found when they are still localized, whereas only a third were localized when found before using the PSA test. A single elevated PSA level has been shown to have a sensitivity of 73% for detecting prostate